

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	M00531A Sm. Tank	Client:	Alaskan Copper Works
Date Received:	06/07/07	Project:	% of Acid PO#M00531, F&BI 706061
Date Extracted:	06/13/07	Lab ID:	706061-01 x10,000
Date Analyzed:	06/14/07	Data File:	706061-01 x10,000.037
Matrix:	Aqueous	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower	Upper
Germanium	95	Limit:	Limit:
		60	125

Analyte:	Concentration ug/L (ppb)
Chromium	1,260,000
Nickel	2,160,000
Copper	1,390,000
Zinc	<10,000
Iron (screen)	12,400,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	M00531B Lg. Tank	Client:	Alaskan Copper Works
Date Received:	06/07/07	Project:	% of Acid PO#M00531, F&BI 706061
Date Extracted:	06/13/07	Lab ID:	706061-02 x10,000
Date Analyzed:	06/14/07	Data File:	706061-02 x10,000.038
Matrix:	Aqueous	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	99	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	9,200,000
Nickel	9,020,000
Copper	1,370,000
Zinc	80,000
Iron (screen)	31,300,000

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Alaskan Copper Works
Date Received:	Not Applicable	Project:	% of Acid PO#M00531, F&BI 706061
Date Extracted:	06/13/07	Lab ID:	I7-212 mb
Date Analyzed:	06/14/07	Data File:	I7-212 mb.013
Matrix:	Aqueous	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	HR

Internal Standard:	% Recovery:	Lower	Upper
Germanium	93	Limit:	Limit:
		60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Nickel	<1
Copper	<1
Zinc	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/18/07

Date Received: 06/07/07

Project: % of Acid PO#M00531, F&BI 706061

**RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES
FOR SPECIFIC GRAVITY
@ 15.56 °C**

Sample ID

Laboratory ID

Specific Gravity

M00531A Sm. Tank
706061-01

1.09

M00531B Lg. Tank
706061-02

1.23

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/18/07

Date Received: 06/07/07

Project: % of Acid PO#M00531, F&BI 706061 Date Analyzed: 06/08/07

**RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES
FOR PERCENT ACID**

<u>Sample ID</u> Laboratory ID	<u>Percent Acid</u>
M00531A Sm. Tank 706061-01	5.3
M00531B Lg. Tank 706061-02	11.3

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

Date of Report: 06/18/07

Date Received: 06/07/07

Project: % of Acid PO#M00531, F&BI 706061

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF AQUEOUS SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 706041-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	1.44	1.42	1	0-20
Nickel	ug/L (ppb)	64.8	67.3	4	0-20
Copper	ug/L (ppb)	1.68	1.64	2	0-20
Zinc	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 706041-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	1.44	92	50-150
Nickel	ug/L (ppb)	20	64.8	89 b	50-150
Copper	ug/L (ppb)	20	1.68	82	50-150
Zinc	ug/L (ppb)	50	<1	81	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	ug/L (ppb)	20	105	70-130
Nickel	ug/L (ppb)	20	106	70-130
Copper	ug/L (ppb)	20	104	70-130
Zinc	ug/L (ppb)	50	107	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/18/07

Date Received: 06/07/07

Project: % of Acid PO#M00531, F&BI 706061

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF AQUEOUS SAMPLES
FOR SPECIFIC GRAVITY
@ 15.56 °C**

Laboratory Code: 706061-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Specific Gravity	1.09	1.09	0	0-2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/18/07

Date Received: 06/07/07

Project: % of Acid PO#M00531, F&BI 706061

**QUALITY ASSURANCE RESULTS
FROM THE ANALYSIS OF AQUEOUS SAMPLES
FOR PERCENT ACID**

Laboratory Code: 706061-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Percent Acid	5.3	5.2	2	0-20

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 18, 2007



INVOICE #07ACU0618-2

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project % of Acid PO#M00531, F&BI 706061 - Results of testing requested by
Gerry Thompson for material submitted on June 7, 2007.

2 samples analyzed for Specific Gravity @ \$25 per sample	\$ 50.00
2 samples analyzed for Percent Acid Content @ \$50 per sample	100.00
Rush Charges (24 hour) 100% of \$150.00	150.00
2 samples screened for Total Fe, Cr, Cu Ni, Zn by Method 200.8 @ \$100 per sample	<u>200.00</u>
Amount Due	\$ 500.00

FEDERAL TAX ID #(b) (6)

706061

SAMPLE CHAIN OF CUSTODY

ME 6/7/07

AT4

Send Report To

GERARD Thompson

Company

Alaskan Copper works

Address

628 S. Harvard St

City, State, ZIP

Seattle WA 98134

Phone #

206-571-6055

Fax #

206-382-4309

SAMPLERS (signature)

PROJECT NAME/NO.

% of AcH

PO #

M00531

REMARKS

Rush = FAX
% of HNO3 : S.G.

ASAP!

Page # of

TURNAROUND TIME

☐ Standard (2 Weeks)☒ RUSH ~~ASAP~~ % of AcH: S.G.

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	% of AcH	Spec. G.	FE-CE-CU	NT-2J	
M00531A	01	6/7/07	12:30	HNO3	1							X	X	X	X	
Sm. tank												ASAP	ASAP			
M00531B	02	6/7/07	12:30	HNO3	1							X	X	X	X	
CG. TANK												ASAP	ASAP			

Friedman & Bruya, Inc.
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

G. Thompson

Nhan Phan

COMPANY

ACW

Fe BT

DATE

6/7/07

6/7/07

TIME

1:15 PM

✓

Samples received at 24 °C

AKC-000679

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
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Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 18, 2007

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 7, 2007 from the % of Acid PO#M00531, F&BI 706061 project. There are 8 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
ACU0618R.DOC